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Modern condition and development of the specialized enterprises – rape producers

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Abstract. The article deals with modern condition and development of specialized enterprises in Ukraine, which are engaged in the cultivation of rapeseed. On the basis of the analysis carried out, factors influencing the production and sale of these products were identified. The influence of specialization on the performance indicators of agricultural enterprises is considered. The article attracts attention to the problems of growing industrial crops and their influence on the soil in Ukraine. The development of specialized enterprises - producers of rapeseed in Ukraine requires the intensification of crop production, development and optimization of the relationship of farms with the processing industry of the agro-industrial complex, improvement of the price mechanism of formation of the market of raw materials.

In European countries, biodiesel production is intensively developed, which focuses on the processing, first of all, of the seeds of oilseeds. The European Economic Commission has decided to transfer 20% of the European motor transport to biofuels by 2020. According to experts, the share of oilseeds in the production of biodiesel in the future will be about 80% [1]. That is why the growing of rape is gaining increasing importance as a result of the growing demand for it and its products for processing on the world market. At the same time, there are a number of problems, including the production of oil from it, environmental problems in the production of biodiesel, its transportation, etc. [2, 3].

In recent years, there has been a clear tendency in Ukraine to increase sown areas and rape production, due to a significant increase in demand and prices for it. It should be noted that the increase in rape production is mainly due to the expansion of the area of sowing, as they increase at a faster pace than the yield of this crop.

The main factors influencing the increase in rape production were the high profitability of the costs of growing it and the fact that it is a good precursor for the cultivation of cereals. Also, exports of rape seeds increased in geometric progression. The quality of Ukrainian rapeseed is practically not inferior to world standards, which ensured its competitiveness in the world market [4].

Rape is grown, as well as other technical crops, mainly agricultural enterprises. They own more than 98% of the total sown area of rape, and, accordingly, 98.5% of the total volume of its production.

Compared to the number of enterprises that sell sunflower seeds, rape seeds are sold by far fewer agricultural producers (table 1). So, given the growth in demand, we can say that competition in this market is not high.

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It should also be noted that the proportion of rape in crop rotation should not exceed 25%, that is, this crop can sow only every fourth field of crop rotation. Consequently, the main way in the development of the industry should be intensification, which involves increasing the yield of culture through improved soil fertility and the introduction of technological innovations.

Table 1. Distribution of agricultural enterprises by the level of specialization of rape.

Indicator	2012	2013	2014	2015	2016
Number of rape enterprises	2041	2891	2592	1976	1533
Share to all enterprises,%	22,2	31,8	28,5	21,7	16,8
Number of enterprises with a level of specialization up to 30	1876	2533	2304	1763	1369
% to rape enterprises	91,9	87,6	88,9	89,2	89,3
% in sales	71,8	72,7	73,0	80,0	75,7
30,1-60	143,0	315,0	257,0	189,0	143,0
% to rape enterprises	7,0	10,9	9,9	9,6	9,3
% in sales	24,4	23,2	24,4	17,3	22,4
more than 60	22	43	31	24	21
% to rape enterprises	1,1	1,5	1,2	1,2	1,4
% in sales	3,8	4,1	2,6	2,6	1,8

Quantitatively for the investigated period the situation on the market of rapeseed is similar to the situation on the market of other industrial crops. The largest share in the total volume of sales in the range of 72-80% is occupied by enterprises with a level of specialization up to 30% (table 2).

Table 2. Influence of specialization on the efficiency of rape production at agricultural enterprises of Ukraine.

Indicator	Groups by rape share in revenue, %			Total
	0.1-30	30.1-60	more than 60	
Number of enterprises	1369	143	21	1533
% to total	89.3	9.3	1.4	100
Area, ths ha	302.9	73.1	9.1	385.1
% to total	78.7	19.0	2.4	100
The area of rapeseed in one farm on average, ha	221	511	434	251
Rape production, ths MT	765.2	211.2	18.6	995
% to total	76.9	21.2	1.9	100
Yield, MT/ha	2.5	2.9	2.1	2.6
% to total	97.8	111.8	79.2	100
Production costs per 1 hectare, UAH	13932	15004	12451	14101
Production cost 1 MT, UAH	55.2	51.9	60.8	54.6
Rapeseed realization, ths MT	754.1	223.5	18.2	995.9
% to total	75.7	22.4	1.8	100
Full cost of 1 MT, UAH	62.7	63.9	63.8	63.0
Sales price 1 MT, UAH	91.1	93.0	81.9	91.3
Profitability, %	45.2	45.6	28.3	44.9
Rape share in revenues from sales of agricultural products, %	8.7	38.8	80.9	10.8

Source: calculated by the author according to the data of the State Statistics Service of Ukraine [5].

21 enterprises in Ukraine have a degree of specialization in the production of rapeseed over 60%, in 7 - in monoculture. On average, one agricultural enterprise engaged in rape has 251 hectares of crops of this crop.

The best results were obtained by enterprises with a degree of specialization from 30% to 60%, in which the share of rape in the income from the sale of agricultural products was 38.8%. The yield of these farms has reached 28.9 centers/ha, and the profitability level - 45.6%. Moreover, the sale price was the largest and played a significant role in generating profit.

The lowest selling price of 1 center and profitability at the level of 28.3% were recorded at farms with a specialization level of more than 60%, with the share of rape in the proceeds from the sale of agricultural products in them is almost 91%.

The lowest yield - 15.5 centers/ha - is recorded in the Zhytomyr region, where rape is grown for only 400 ha. It is in these farms that rape is a monoculture with the lowest selling price and the lowest level of profitability.

In the period of 2012-2017, large and medium-sized Ukrainian agricultural enterprises continued to increase the area of rape culture, although the dynamics of these changes is unstable. Increasing the yield by 27% has allowed an increase in production by almost 80%, and sales - by 65% (table 3).

Table 3. Economic indicators of rape production in agricultural enterprises[a] of Ukraine.

Indicator	2012	2013	2014	2015	2016	2017	2017 to 2012, %
Area, ths ha	488	874	766	581	390	690	141.4
Rape production, ths MT	1084.0	2086.5	1939.8	1530.3	1001.7	1948.8	179.8
Yield, MT/ha	2.2	2.4	2.5	2.6	2.6	2.8	127.1
Production costs per 1 hectare, UAH	6141	5716	6575	10882	14030	16624	270.7
Production cost 1 MT, UAH	27.7	24.0	26.0	41.3	54.6	58.9	212.9
Rapeseed realization, ths MT	1181.5	2021.6	1922.3	1483.3	995.9	1948.8	164.9
Full cost of 1 MT, UAH	32.3	28.3	32.4	51.3	63.0	70.3	217.6
Sales price 1 MT, UAH	39.2	30.8	41.9	74.1	91.3	101.0	257.5
Profitability, %	21.4	8.6	29.2	44.3	44.9	43.6	X
Rape share in revenues from sales of agricultural products, %	3.9	5.3	5.0	3.9	3.2	5.9	X

[a] Large and medium-sized agricultural enterprises.

The increase in rape prices was faster than the increase in the cost of production, 157.5% versus 117.6%, thus, the enterprises doubled the profitability level, which was 43.6% in 2017, against 21.4% in 2012.

The share of rape in the revenues from the sale of agricultural products at the abovementioned enterprises changed annually, but the highest was 5.9% in 2017.

Agricultural production has long been a business. The main goal is to maximize profits by increasing revenues and reducing costs. On the market of rapeseed, an important factor is the formation of demand, which is determined by the level of consumption of this kind of products [6].

In today's market, rape is predominantly used for the production of biofuels, the demand for which is constantly increasing due to rising energy prices. Ukraine acts as an exporter of rape mainly as raw material, which is further processed into biofuels. The main demand in this market is created by external factors. In the immediate vicinity of the Trans-carpathian border of Ukraine, the largest biofuel plant in Europe is being built.

At the same time, domestic demand for rape continues to grow due to capacity building of rapeseed oil producers and activation of grain traders. The largest producers of rapeseed oil are Vioil, which produces 28.2% of total production, Oliyar - 23.4%, and Kernel - 19.2% [7].

Prices for rapeseed oil in the EU are slowly rising [8]. This was affected by a sharp decline in rape seed production in Germany, Poland, France and other countries, a total of about 2.3 million tons this year, as well as a decrease in supplies from Australia. As a result, the countries of the European Union increase the import of rapeseed oil, mainly from Ukraine, Russia and Belarus.

In addition, rape crops in European countries in the year 2018 were severely affected by drought, whereas in Ukraine production increased by 0.5 million tons, reaching a ten-year high of 2.84 million tons [9].

Consequently, despite the operation of the rape industry in Ukraine on an extensive basis, in today's financial and economic situation in the agrarian sector, enterprises that specialize in growing canola, mainly use favorable conditions for the implementation of its seeds for export.

However, taking into account the experience of European countries in the production of biodiesel fuel and the development of competition in the biofuels market, for Ukraine rape growing and processing is and remains one of the promising areas of agrarian business.

Ukraine's economy is predominantly based on agriculture and the extraction of raw materials. Taking into account the current problems of irrational use of land and energy problems of the country, one of the priority sectors can be the branch of biofuels. Increasing the economic efficiency of rape production requires the creation of a full cycle of production and use of biofuels, which begins with rape growing, own production of biodiesel and the need to provide a significant portion of vehicles with biodiesel.

Today rape crops in Ukraine have reached a critical level. At the same time, according to Ukragrokonsulting, only 15-20% of domestic rapeseed producers adhere to the rules of crop rotation. These are mainly agricultural holdings, and farms do not always have such an opportunity. According to experts, the main factors determining the extensive level of rape industry in Ukraine are the difficult financial situation of agricultural enterprises, the low level of agricultural culture and the discrepancy of the technology of cultivation.

At the same time, the production and use of biofuels may reduce Ukraine's energy dependence on imported fuels, CO_2 emissions, provide additional economic benefits based on the Kyoto Protocol and create new jobs.

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